

911 Best Practices for VoIP and Remote Phones

It's no secret that we're undergoing a telecom revolution. The growing use of VoIP and virtual private network

(VPN) remote extensions -- and fewer hard-wired land lines -- has been a positive change for most individuals and businesses in this country. Phone calling is more flexible, less costly and more convenient than ever before.

There is one hiccup, however, and that is in the area of emergencies.

If you call 911 from a conventional land-line or a mobile phone with GPS, emergency workers immediately know your location and where they should send their first responders. With hard-wired phones, there is a direct relationship between the telephone number and the physical location of the caller. When an emergency call is received, the location is automatically determined from phone company databases and displayed on the operator's console.

An emergency call placed over Internet protocol (IP) telephony or by a remote user on the VPN system is different. Operators answering these calls often see the location of the digital subscriber line (DSL) provider or the network router -- but not the location of the phone used to make the call.

It's estimated that 50% of Americans work or live in situations where their phone systems could possibly confuse their location in the event of an emergency. If your business is using VoIP and/or remote VPN phones, it's essential that you take steps to ensure that first responders know your physical location in case of an emergency.

The solution most businesses are adopting is a system provided by U.S. VoIP vendors called Enhanced 9-1-1 or E9-1-1. Initiated with the Wireless Communications and Public Safety Act of 1999, this emergency-calling system associates a physical address with the calling party's telephone number. For this system to work, however, action on your part is required.

Follow the rules established for Enhanced 9-1-1 users.

The VoIP E9-1-1 system is based on a static lookup table. This means you must make a physical effort to ensure that the numbers listed on the table reflect your business locations.

To reduce the possible risks to public safety posed by VoIP 911 service, the FCC has imposed requirements stating that VoIP providers "must automatically provide 911 service to all their customers as a standard, mandatory feature without customers having to specifically request this service. VoIP providers may not allow their customers to 'opt-out' of 911 service."

If you are now -- or are thinking about -- subscribing to an interconnected VoIP service, you are required to do the following:

- Provide your accurate physical address to your interconnected VoIP service provider to ensure that emergency services can quickly be dispatched to your location.
- Be familiar with your VoIP service provider's procedures for updating your address, and promptly update address information in the event of a change. Changing your billing address with your VoIP provider does not

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guarantee your E9-1-1 listing will change. You have a legal responsibility to make sure this address is current and correct.

- Have a clear understanding of any limitations of your 911 service.
- Inform employees or long on-premise contractors about your VoIP service and its 911 limitations, if any.
- If your power is out or your Internet connection is down, be aware that your VoIP service may not work. Consider installing a backup power supply, maintaining a traditional phone line or having a wireless phone as a backup.
- If you have questions about whether the phone service you are receiving is an interconnected VoIP service, contact your service provider for further information.

Manage access to 911 for your remote phone users.

The above rules help protect you, as a VoIP-using business, in emergencies. Unfortunately, they do not protect your VPN remote users. VPN networks work from a single phone number with many remote extensions. Connecting those extensions to the locations of the individual users presents a greater challenge.

Here are your two primary options for your remote and home-based users:

1. Block 911 calls from those phones and instruct remote and home-based workers to use their hard-wired home phone or their mobile phone in case of an emergency. This may be the best option for smaller businesses.
2. Larger businesses can invest in and install an E9-1-1 system on their network. Enhanced 911 may be an option available from your network provider or you can purchase an independent solution and install it on your network.

As a business owner or manager, it's important for you to take these steps to ensure that your employees and your business can get help in case of any emergency.